$$Li_xM_{1-(d+t+q+r)}D_dT_tQ_qR_r(XO_4)$$

wherein:

M is a cation of a metal selected from the group consisting of Fe, Mn, Co, Ti, Ni or mixtures thereof;

D is a metal having a +2 oxidation state selected from the group consisting of Mg^{2+}, Ni^{2+}, Co^{2+}, Zn^{2+}, Cu^{2+}, and Ti^{2+};

T is a metal having a +3 oxidation state selected from the group consisting of Al^{3+}, Ti^{3+}, Cr^{3+}, Fe^{3+}, Mn^{3+}, Ga^{3+}, Zn^{3+}, and V^{3+};

Q is a metal having a +4 oxidation state selected from the group consisting of Ti^{4+}; Ge^{4+}; Sn^{4+}, and V^{4+};

R is a metal having a +5 oxidation state selected from the group consisting of V^{5+}; Nb^{5+}, and Ta^{5+};

X comprises Si, S, P, V or mixtures thereof;

$0 \leq x \leq 1$; and

$0 \leq d, t, q, r \leq 1$, where at least one of d, t, q, and r is not 0.